

ENGINEERING STANDARDS UPDATE

Standards are serious business, but this newsletter isn't.

Topics this month:

- Make Suggestions to LANL Standards!
- Training & Qualification
- LANL Standards Issued in July or so
- Policy Documents Updated
- Engineering Processes News
- DOE Technical Standards Action
- National Standards Action
- When Good Conduct of Engineering Isn't Followed

The LANL Engineering Standards: <http://engstandards.lanl.gov/>

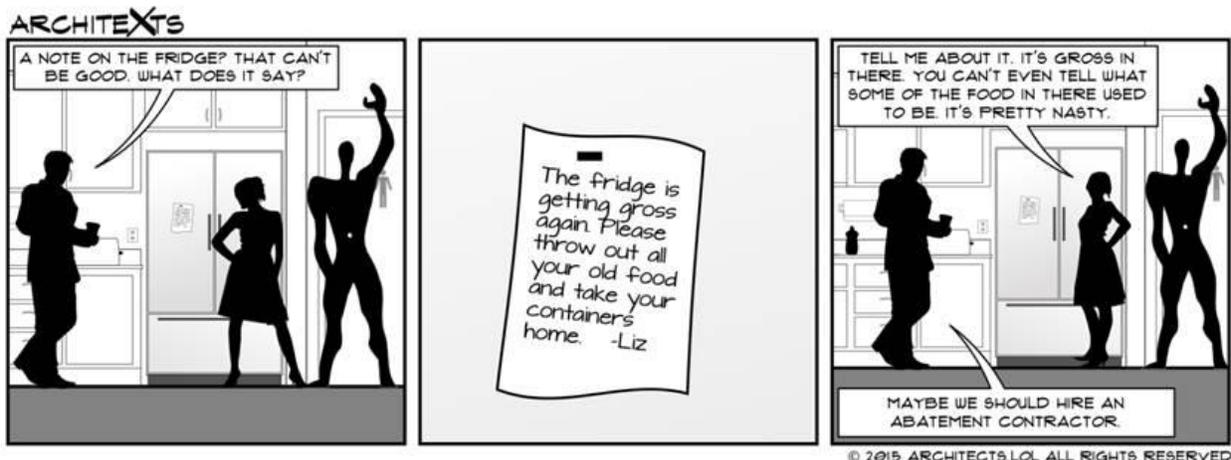
Note: This newsletter has hyperlinks all over but the blue/underlined formatting may not show. Hover your cursor where you might expect one.

MAKE SUGGESTIONS TO LANL STANDARDS!

There's a new web-based tool that allows users to log comments on the ESM, Details, and the CAD Stds Manual. Links appear on the webpages of those collections and your input (or question) is automatically logged in a SharePoint library and the POC notified. It works in a similar way to the spec-comment tool that's been at the top of the specs page for a few months. Don't forget that Internet Explorer is better than Firefox when entering S/P data. Also, only works for internal customers; AEs will have to use email but we'd still like your input! Many thanks to Cassandra Cde Baca (NIE) and Christina Salazar-Barnes (CoE's Doc Control lead).

How many went home to work in March and left food in the fridge?

THE REFRIGERATOR



TRAINING & QUALIFICATION

Upcoming courses via Webex (registrants will receive Webex invitation by the day before class).

CGD Overview, Wed – Aug 12, 8:30 – 12:30. UTrain 30726. Intro to commercial grade dedication for nuclear service per AP-341-703. To be a preparer of CGDs, you also need to take the 30727 preparers course later. Taught by Rick Sarwal and Dan Frantz.

Electrical Standards – Wed, Aug 12, 8:00-noon

Four-hour course 17998 covers the electrical engineering standards in Chapter 7 of the LANL Engineering Standards Manual and discusses mandatory requirements and good practices for those involved in electrical design. Strongly suggested for electrical designers, electrical engineers, electrical safety officers, and facility managers. AEs are also encouraged to participate. Taught by Electrical Standards POC Eric Stromberg.

For UTrain Courses: Registering: Go to UTrain, search on course, select and enroll. Disenroll if you have to bail. AEs can also register; use token (CryptoCard) or contact ES T&Q coordinator Yolanda Trujillo at 664-0118 or yjtrujillo@lanl.gov with Z number.

LANL STANDARDS ISSUED IN JULY OR SO
Engineering Standards Manual ESM STD-342-100

ESM-Chapter	Section	Title	Rev.	Date	Summary
Ch. 1 - General	210	Attachment 1: Systems List		7/7/20	See summary at end of document. Thanks to POC Charlie Nuss and others.
Ch 1 and 14 – Sustainable Design	References	On linked LCCA page: Added “Useful concepts and flowchart: USACE ECB 2020-8 Execution and Documentation Requirements for “Life Cycle Cost Analyses”			
Ch 16 IBC Program	References	IBC and IEBC errata files updated		7/8/20	For hardcopy users
Chapter 17 - Pressure Safety	ADMIN-3	ADMIN-3-FM01, Relief Device Procurement Pre-approval	1	7/22/20	Now allows PSO approval
		ADMIN-3-FM03, Steam and Boiler Relief Device Procurement Pre-approval	0		New form; requires CPSO or Certified DCPSO approval
		New Forms Reference: Approver Listing for Pressure System Component Purchase			7/21/20

Master Specs [STD-342-200](#)

Spec Number	Rev.	Spec Title	Effective	Summary of latest Revision
08 5113	4	Aluminum Windows	7/8/2020	Reformatted and moved some submittal requirements out of Sustainable Design Submittals and into Action or Informational Submittals. Thanks to POC Scott Richardson.
08 8000	5	Glazing		
10 2113.13	3	Metal Toilet Compartments		

CAD Standards Manual [STD-342-300](#)

Section	Section/Title	Rev.	Date	Summary of Revision
200	Reference added: Digital Signature Software request and Readme	-	8/3/2020	New Acrobat Pro script for e-signing multi-sheet drawings. Distribution currently limited to LANL and no foreign nationals, and by request. Thanks to developer Ray Henderson, Michael Richardson, and POC Scott Richardson.

Drawings & Details [STD-342-400](#)

Dwg. #	Sheet	Rev.	Title	Date	Summary
ST-G3010-2	1	5	Water Piping Tie-In, 3/4" - 2" Copper Service Line	7/21/2020	Thanks to SME Mark Trujillo, Donald Yardman, Scott Richardson, POC John O'Brien
	2		Water Piping Tie-In, 4" - 12" Service Line		

POLICY DOCUMENTS UPDATED

Three of the four CoE policy documents were revised in July (the fourth on T&Q wasn't due). Changes were largely administrative and not technical. Excerpts of the change summaries are below, full documents at <https://int.lanl.gov/policy/management-systems.shtml>

[PD 340](#) Conduct of Engineering and Configuration Management for Facility Work, Rev. 7, 07/13/20

Changed Issuing Authority from Principal Associate Director for Operations and Business (PADOPS) to Deputy Laboratory Director for Operations (DDOPS).

Changed Responsible Manager from Associate Director for Nuclear and High-Hazard Operations (ADNHHO) to Associate Laboratory Director for Facilities and Operations (ALDFO).

[P 341](#) Facility Engineering Processes Manual, Rev. 7, 7/13/20

Changed Issuing Authority from Associate Director for Nuclear and High-Hazard Operations (ADNHHO) to Associate Laboratory Director for Facilities and Operations (ALDFO).

Changed Responsible Manager from Conduct of Engineering Office Director to Engineering Services-Division Leader (ESDL).

Changed Responsible Office from Conduct of Engineering Office (CENG-OFF) to Engineering Services-Division Office (ES-DO).

P 342 Engineering Standards, Rev. 3, 7/10/20

Clarified purpose and scope.

Changed Issuing Authority from Associate Director for Nuclear and High-Hazard Operations (ADNHHO) to Associate

Laboratory Director for Facilities and Operations (ALDFO).

Changed Responsible Manager from Engineering Services-Division Leader to Engineering Services-Division Leader (ESDL).

Changed ADNHHO to ALDFO throughout.

Removed STD-342-500, *Design Guides*.

ENGINEERING PROCESSES NEWS

The following Administrative Procedures have been revised and posted to the COE Administrative Procedures [SharePoint site](#). Always ensure you are working to the latest version of all Engineering Administrative Procedures adopted at your location.

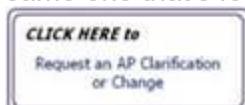
AP-341-502	Management Level Determination	7/10/20: Issued Clarification CIR-2020-001.0, Project Implementation of Revision 6 of AP-341-502. Concerns implementation of the new MLD procedure on active projects. Thanks to Jorge Ruiznavarro, Jason Apperson.
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If you have been identified as requiring additional training on an AP you will see an assignment on your UTrain “to do” list.

In other AP news:

- AP-341-802 System Health Reporting: in DRS for review
- AP-341-405 Identification and Control of Technical Baseline in Operating Facilities: Close to review phase
 - This revision will work to integrate AP-341-403 Master Document List into the same procedure
- Upcoming revisions:
 - AP-341-602 Requirements and Criteria Document (with ES-EPD for revision suggestions)
 - AP-341-616 Technical Baseline Change During Design
 - AP-341-801 Post Modification / Post Maintenance Testing
 - AP-341-404 Master Equipment List
- Engineering Services is taking over management of the Submittals procedure from Project Management; that revision/creation is currently being worked.

The CoE Eng Processes Manager is Sarah Terrill, 667-7788, sterrill@lanl.gov. Please enter issues with APs in the SharePoint issues database. Use the live button below, same one that’s found in the upper right of the Processes SharePoint [homepage](#).



A webpage of the AP pdfs can be reached from LANL Internal with any browser/machine combo (also, you can easily get to int.lanl.gov from mymail.lanl.gov). Once in, you can navigate from

the top of the [CoE home page](#) or directly [here](#). On the other hand, if you need the AP Word forms, open a terminal session and use IE for SharePoint for best results. When all else fails, email Christina Salazar-Barnes.

[The Americans with Disabilities Act celebrates 30 years of accessibility](#)

Today's buildings and community venues are far more accommodating of occupants needs and accessible to a greater segment of the population — all thanks to something that happened 30 years ago. The Americans with Disabilities Act, signed into law on July 26, 1990, by President George H. W. Bush, is a wide-ranging, revolutionary piece of civil rights legislation that covers access, provides protection and expands opportunities for individuals with disabilities by reducing barriers in places of employment, state and local government services, public accommodations, transportation, commercial facilities, telecommunications and the built environment. [The International Code Council is proud of the role it has played in this landmark legislation.](#)

DOE TECHNICAL STANDARDS ACTION

[Tech Stds Program](#) [postings](#) in the past month:

[DOE-HDBK-1081-2014 \(Reaffirmed 2020\), Primer on Spontaneous Heating and Pyrophoricity](#)

The Department of Energy (DOE) Primer on Spontaneous Heating and Pyrophoricity was prepared as an information resource for DOE and contractor personnel who may have these types of materials at their site. An understanding of spontaneous heating and pyrophoricity hazards is necessary for DOE facility personnel to operate and maintain facilities and facility support systems in a safe manner. Change Notice 1 approved 2-20-2018.

[DOE-STD-1090-2020, Hoisting and Rigging](#)

The standard invokes applicable OSHA, ASME, ANSI, and national consensus standards but also defines more stringent provisions necessary to accomplish the complex, diversified, critical, and oftentimes hazardous hoisting and rigging work found within the DOE complex.

[DOE-STD-1236-2020, Canine Explosive Training Aid Management](#)

Explosive training aids are used for training, certifying and performance testing of canines. The utility and effectiveness of the training aids can be significantly reduced if they become contaminated with other explosive types. Care in handling, transportation, and storage of explosive training aids will help maintain their overall quality and avoid cross-contamination. Additionally, recognizing when it is time to replace training aids will help ensure that canine teams are being trained and are performing at the highest level possible. This standard outlines accepted management practices for ensuring the quality of explosive training aids.

NATIONAL STANDARDS ACTION

LANL's [IHS](#) online codes & standards subscription news:

Document number: **ASHRAE 55 ERTA**

Publication Date: 7/10/2020

Title: **Thermal Environmental Conditions for Human Occupancy**

Type of Change: **Errata/Erratum**

WHEN GOOD CONDUCT OF ENGINEERING ISN'T FOLLOWED

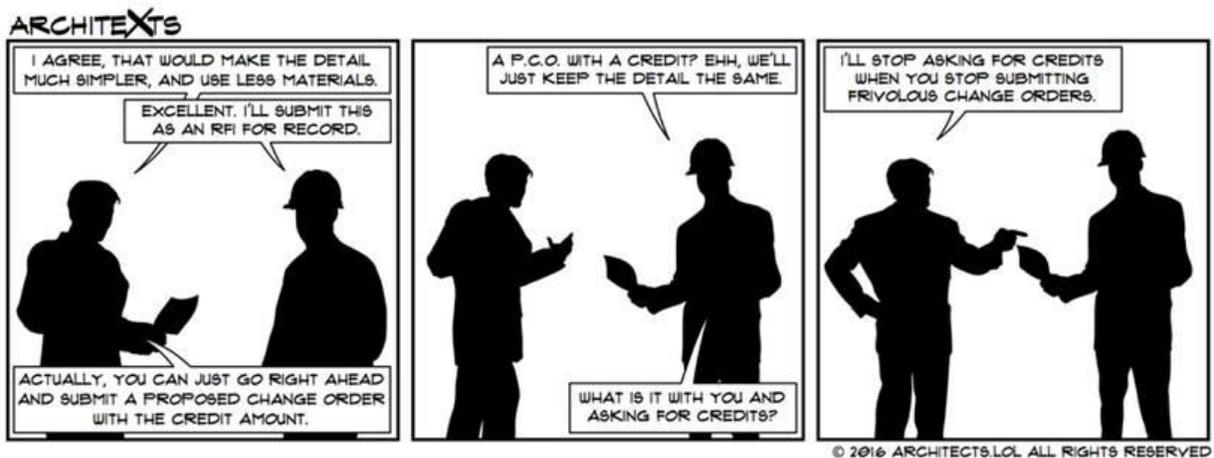


Grenfell is the London high-rise that burned in 2017 killing 72 due to flammable cladding. This article's main focus is new information about the contractor not passing the full cost savings of a substitution on to the owner (LANL's 01 2500 Substitution Procedures spec/form is intended to help prevent this). But it also mentions several of the actions that occurred causing the catastrophe, including the designer-builder keeping fire protection SMEs out of the decision and the jurisdiction failing to stop it. For shame.

Grenfell firm took some of cladding savings for itself, inquiry told

<https://www.theguardian.com/uk-news/2020/jul/20/grenfell-firm-rydon-promised-five-times-to-appoint-fire-safety-advisers-inquiry-told>

CONSTRUCTION ADMINISTRATION: REQUESTING CREDIT



LAST MONTH'S UPDATE TOPICS

Miss an issue? The archive is at "Monthly Update" on the Standards homepage. Last month's topics:

- **Training & Qualification**
- **LANL Standards Issued in June or so**
- **Engineering Processes News**
- **DOE Technical Standards Action**
- **National Standards Action**
- **When Good Conduct of Engineering Isn't Followed**

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